UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,503	03/30/2004	Jennifer Arden	EMC-040PUS	3245

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EXAMINER
BENGZON, GREG C

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/812,503	ARDEN ET AL.
	Examiner	Art Unit	
	GREG BENGZON	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 May 2008</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4,7-34 and 36-63</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-4,7-34 and 36-63</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>05/23/2008</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

This application has been examined. Claims 1-4,7-34, 36-63 are pending.

Claims 5,6 and 35 are cancelled.

Making Final

Applicant's arguments filed 05/22/2008 have been fully considered but they are

not persuasive.

The claim amendments regarding -- *'host region'* -- and -- ' *storage region'* --

alter the scope of the claims but do not overcome the disclosure by the prior art as

shown below.

The Examiner presents new grounds for rejection as necessitated by claim

amendments and is thus making this action FINAL.

Priority

The effective date of the claims described in this application is March 30, 2004.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 05/23/2008 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4,7-18, 20-21, 30-34, 36-44, 46-48, 54-60, 63 rejected under 35 U.S.C.

103(a) as being unpatentable over Luo (US Patent 7139819) in view of Goldstein (US

Patent 7197559) further in view of Baldwin (US Publication 2003/0167327).

Luo disclosed (re. Claim 1) a method of displaying alert information for objects in

a network, comprising: determining at least one potential root cause of one or more

triggers in the network; (Luo-Column 8 Lines 1-10,' *an indication that a fire has been*

detected at a particular network element, an identity of a particular port that has failed')

and displaying a topographical network map (Luo-Column 10 Lines 25-30,*'network*

topology window') including network objects associated with at least one of the one or

more triggers. (Luo-Figure 7, Column 9 Lines 55-65,*'visually map outstanding trouble*

tickets')

While Luo substantially disclosed the claimed invention Luo did not disclose (re.

Claim 1) storing performance information for the network objects at predetermined time

intervals.

The Examiner notes that at the time of the invention it would have been well-

known in the networking art that monitoring operations involve polling for device status

at predetermined time intervals, and upon receiving said status, storing the performance

information.

Furthermore Goldstein disclosed (re. Claim 1) storing performance information

for the network objects at predetermined time intervals. (Goldstein-Column 5 Lines 10-

30,'*measurements taken over relevant time period*')

The Examiner notes that Goldstein has overlapping disclosure regarding root

cause analysis. (Goldstein-Column 4 Lines 5-10,'*response time exceeds a particular

threshold* , Column 29 Lines 10-20 , Column 36 Lines 45-50,'*selected by the RCA

system 168 because their performance exceeded a user-specified or default threshold*')

Luo and Goldstein are analogous art because they present concepts and

practices regarding the presentation of network performance indicators. Thus it would

have been obvious to combine Goldstein with Luo, in order to store performance

information for the network objects at predetermined time intervals. The motivation for

said combination would have been to provide isolation of the root cause of the

performance degradation (Goldstein-Column 2 Lines 20-30).

The Examiner notes that Luo Column 10 Lines 15-65 disclosed wherein the

graphical user interface 800 includes a network topology window 810, navigation tools

820, and management tools 830. In the network topology window 810, the network may

be broken down into a group of logical network planes (e.g., Switching planes,

Transmission planes, Signaling planes, Customer Access planes, etc.). This provides a

network operator with a convenient way to analyze a particular portion of the network of

interest to that operator.

While Luo-Goldstein substantially disclosed the claimed invention Luo-Goldstein

did not disclose (re. Claim 1) displaying a topographical network map <u>comprising:</u>

> *a host region comprising network objects associated with hosts in the network;*
>
> *a storage region comprising network objects associated with storage devices in*

the network; and

> *a connectivity region comprising network objects associated with connectivity*

devices in the network configured to be connected to at least one of the hosts and the

storage devices in the network .

Baldwin disclosed (re. Claim 1) displaying a topographical network map

<u>comprising:</u>

a host region comprising network objects associated with hosts in the network;

(Baldwin-Figures 31-32,Paragraph 496-500)

a storage region comprising network objects associated with storage devices in

the network; (Baldwin-Figures 31-32,Paragraph 496-500) *and*

a connectivity region comprising network objects associated with connectivity

devices in the network configured to be connected to at least one of the hosts and the

storage devices in the network . (Baldwin-Figures 31-32,Paragraph 496-500)

Luo, Goldstein and Baldwin are analogous art because they present concepts

and practices regarding the presentation of network performance indicators. Thus it

would have been obvious to combine Baldwin with Luo-Goldstein. The motivation for

said combination would have been enable a GUI to render large SAN topology

configurations using a hierarchical, multi-view approach. (Baldwin-Paragraph 488)

Claim 31 (re. computer system) and Claim 55 (re. an article) rejected on the

same basis as Claim 1.

Luo-Goldstein-Baldwin disclosed (re. Claim 2,32) associating a first visual

indicator with one or more of the displayed network objects associated with the at least

one potential root cause. (Luo-Column 9 Lines 55-65, Goldstein-Figure 32-37, Column 5

Lines 10-30)

Luo-Goldstein-Baldwin disclosed (re. Claim 3,33) associating a second visual

indicator with one or more objects that are identified as the potential root cause objects.

(Luo-Column 9 Lines 55-65)

The Examiner notes that mere duplication of parts has no patentable significance

unless a new and unexpected result is produced.

Luo-Goldstein-Baldwin disclosed (re. Claim 4,34) wherein the second visual

indicator is associated with objects at a device level. (Luo-Column 12 Lines 35-40)

Luo-Goldstein-Baldwin disclosed (re. Claim 56) displaying a first region for a

first type of network object and a second region for a second type of network object.

(Luo-Figure 8, Column 10 Lines 20-35)

Luo-Goldstein-Baldwin disclosed (re. Claim 7,36,37) visually identifying a first

one of the plurality of cells that corresponds to configuration and trigger information for

the map. (Luo-Figure 7, Column 9 Lines 55-65,'*visually map outstanding trouble tickets'*)

Luo-Goldstein-Baldwin disclosed (re. Claim 8,38) wherein certain ones of the

displayed network objects are expandable to show devices associated therewith. (Luo-

Column 10 Lines 45-65,Goldstein-Column 31 Lines 35-40,*'expandable tree'*)

Luo-Goldstein-Baldwin disclosed (re. Claim 9,39,57) displaying a list of devices

associated with a selected one of the displayed network objects. (Luo- Column 10

Lines 45-65)

Luo-Goldstein-Baldwin disclosed (re. Claim 10,40,58) displaying performance

data for one or more of the listed devices. (Goldstein-Figure 32-37, Column 5 Lines 10-

30)

Luo-Goldstein-Baldwin disclosed (re. Claim 11,41,59) visually identifying a first one of the listed devices as a root cause. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein-Baldwin disclosed (re. Claim 12) identifying the first one of the listed devices as the root cause based upon exceeding a threshold for the performance data metric. (Goldstein-Column 4 Lines 5-10,'response time exceeds a particular threshold , Column 29 Lines 10-20 , Column 36 Lines 45-50,'selected by the RCA system 168 because their performance exceeded a user-specified or default threshold')

Luo-Goldstein-Baldwin disclosed (re. Claim 13,42) including adding a selected one of the listed devices to the map. (Goldstein-Column 13 Lines 10-15, Column 14 Lines 65)

Luo-Goldstein-Baldwin disclosed (re. Claim 14) displaying expanded views of selected ones of the displayed objects. (Luo- Column 10 Lines 45-65,Goldstein-Column 31 Lines 35-40,'expandable tree')

Luo-Goldstein-Baldwin disclosed (re. Claim 15) displaying expanded views of

selected ones of the displayed objects including objects not associated with the triggers.

(Luo- Column 10 Lines 45-65,Goldstein-Column 31 Lines 35-40,*expandable tree*)

Luo-Goldstein-Baldwin disclosed (re. Claim 16) displaying a hierarchical view of

network objects. (Luo- Column 10 Lines 45-65,Goldstein-Column 31 Lines 35-

40,*expandable tree*)

Luo-Goldstein-Baldwin disclosed (re. Claim 17,43, 60) displaying a graph of

performance data of a first metric for a first one of the displayed objects. (Goldstein-

Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein-Baldwin disclosed (re. Claim 18,44) displaying a threshold for the

first metric. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein-Baldwin disclosed (re. Claim 20) displaying the performance data

over time. (Goldstein-Figure 32-37, Column 5 Lines 10-30)

Luo-Goldstein-Baldwin disclosed (re. Claim 21,46,47,48) displaying the

performance data for a period of time selected by a user. (Goldstein-Figure 32-37,

Column 5 Lines 10-30, Column 43 Lines 1-5)

Luo-Goldstein-Baldwin disclosed (re. Claim 30,54,63) setting a threshold as a

logical combination of a plurality of metrics. (Goldstein-Column 32 Lines 10-25)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claims 19, 45 rejected under 35 U.S.C. 103(a) as being unpatentable over Luo

(US Patent 7139819) in view of Goldstein (US Patent 7197559) further in view of

Baldwin (US Publication 2003/0167327) further in view of Bertram (US Patent

6667743).

While Luo-Goldstein-Baldwin substantially disclosed the claimed invention Luo-

Goldstein-Baldwin did not disclose (re. Claim 19,45) adjusting the threshold based

upon user instruction via graphical user interaction.

Bertram disclosed (re. Claim 19 ,45) adjusting the threshold based upon user

instruction via graphical user interaction. (Bertram-Figure 4A, 4B,Column 9 Lines 30-45)

Luo,Goldstein, Baldwin and Bertram are analogous art because they present

concepts and practices regarding the presentation of network performance indicators.

Thus it would have been obvious to combine Bertram with Luo-Goldstein-Baldwin . The

motivation for said combination would have been to allow for displaying selected data

without unduly cluttering the display. (Bertram-Column 4 Lines 25-30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 22,49,61 rejected under 35 U.S.C. 103(a) as being unpatentable over

Luo (US Patent 7139819) in view of Goldstein (US Patent 7197559) further in view of

Baldwin (US Publication 2003/0167327) further in view of Rochford (US Patent

6654803).

While Luo-Goldstein-Baldwin substantially disclosed the claimed invention Luo-

Goldstein-Baldwin did not disclose (re. claim 22,49,61) moving a slider to a desired

time and synchronizing the map to a configuration at the desired time.

Rochford disclosed (re. claim 22,49,61) moving a slider to a desired time and

synchronizing the map to a configuration at the desired time. (Rochford-Figure 3)

Luo,Goldstein,Baldwin and Rochford are analogous art because they present

concepts and practices regarding the presentation of network performance indicators.

Thus it would have been obvious to combine Rochford with Luo-Goldstein-Baldwin .

The motivation for said combination would have been to enable viewing of the

relationship between time and network events. (Rochford-Column 3 Lines 60-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 23-29,50-53,62 rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US Patent 7139819) in view of Goldstein (US Patent 7197559) further in view of Baldwin (US Publication 2003/0167327) further in view of Carley (US Patent 7069177)

While While Luo-Goldstein-Baldwin substantially disclosed the claimed invention Luo-Goldstein-Baldwin did not disclose (re. Claim 23) displaying statistical bands about the performance data.

Carley disclosed (re. Claim 23) displaying statistical bands about the performance data. (Carley-Column 4 Lines 60-65,' *history of performance data statistics…about performance of network services that are outside acceptable tolerance or control limits'*)

Luo,Goldstein, Baldwin and Carley are analogous art because they present concepts and practices regarding the presentation of network performance indicators. Thus it would have been obvious to combine Carley with Luo-Goldstein-Baldwin . The motivation for said combination would have been to allow user to compare baseline, acceptable and current conditions. (Carley-Column 3 Lines 15-20)

Claims 50,62 are rejected on the same basis as Claim 23.

Luo-Goldstein-Baldwin-Carley disclosed (re. Claim 24,51) wherein the statistical

bands are defined by a statistical relationship to historical data. (Carley-Column 4 Lines

60-65,' *history of performance data statistics...about performance of network services*

that are outside acceptable tolerance or control limits')

Luo-Goldstein-Baldwin-Carley disclosed (re. Claim 25) receiving a user selection

of a time period for the historical data. (Goldstein-Figure 32-37, Column 5 Lines 10-30,

Column 43 Lines 1-5)

Luo-Goldstein-Baldwin-Carley disclosed (re. Claim 26,52) defining the statistical

bands by using standard deviations from historical data. (Carley-Figure 5, Column 14

Lines 55-65)

Luo-Goldstein-Baldwin-Carley disclosed (re. Claim 27,53) defining the statistical

bands as about 1.5 standard deviations from the historical data. (Carley-Figure 5,

Column 14 Lines 55-65)

Luo-Goldstein-Baldwin-Carley disclosed (re. Claim 28) defining the statistical

bands as about 1.5 standard deviations plus or minus about ten percent. (Carley-Figure

5, Column 14 Lines 55-65)

Luo-Goldstein-Baldwin-Carley disclosed (re. Claim 29) wherein the statistical

bands are displayed for performance data of writes per second for a device. (Goldstein-

Column 27 Lines 45-50)

Response to Arguments

Applicant's arguments filed 05/22/2008 have been considered but are moot in

view of the new ground(s) of rejection.

The Applicant presents the following argument(s) [*in italics*]:

...the cited art does not disclose or suggest that the network objects in the

topographical network map are associated with at least one of the one or more triggers.

The Examiner references FIG. 7 of Luo which includes a geographic map 710 (see

page 3 of the Office Action). Applicants respectfully submit that a geographic map is not a topographical network map....

The Examiner respectfully disagrees with the Applicant.

In addition to indicating the locations of the network elements on a geographic map Luo disclosed associating each network element with one of a plurality of logical planes and providing a network map. The network map displays relationships between the plurality of logical planes and those network elements associated with the plurality of logical planes. The network topology window 810 automatically controls the level of detail of displayed information. For example, as operators "walk the network," the labels for network elements in the current locale of the operator's view get displayed automatically.

The combination of the geographical map and network map disclosed a topological network map.

Luo Figure 7, Column 9 Lines 55-65 disclosed *visually mapping outstanding trouble tickets* wherein the tickets are initiated of alarm events, said alarm events inherently including triggers/criteria for setting the alarm.

Thus Luo disclosed *wherein the network objects in the topographical network map are associated with at least one of the one or more triggers.*

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to the enclosed PTO-892 form.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Greg Bengzon whose telephone number is (571) 272-

3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. B./

Examiner, Art Unit 2144

/Paul H Kang/

Primary Examiner, Art Unit 2144